

## Claims

1. A handling method after updating of privacy profile of a target UE, wherein, when the location service (LCS) system is aware that the privacy profile of the target UE was updated, the method comprising the steps of:

A. For a location request against that UE, the LCS system performing a privacy check, if the said location request passes the privacy check, going to step B, otherwise going to step C;

B. The LCS system continuing to handle the location request until the end of the handling process of the said location request;

C. The LCS system initiating a cancellation procedure to the said location request.

2. A method according to Claim 1, wherein, before the said step A, the method further comprising: the LCS system deciding whether there is a location request for the said target UE currently in activated state, if yes, going to step A; otherwise ending the current process.

3. A method according to Claim 1, wherein, when there are more than one location request for the said target UE in activated state, step A is repeated until privacy check for all the location requests for the target UE in activated state have been completed.

4. A method according to Claim 1, wherein the said performing a privacy check for a location request in step A comprising:

for the location request, the LCS system performing a privacy check based on the updated privacy profile of the target UE, comparing the saved information of the location request with the current privacy profile of the target UE, deciding whether the saved information of the location request satisfies the condition of the current target UE's privacy profile to allow the location information of the target UE to be provided to the LCS client, if the condition is satisfied, the location request will pass the privacy check; otherwise, the location request will not pass the privacy check.

5. A method according to Claim 1, wherein the type of said location request is a UE available event , and the said step C comprising the steps of:

C11. The Gateway Mobile Location Center (GMLC) initiates to the Core Network (CN) cancellation procedure to the location request carrying the identification of UE available event location request;

C12. CN deletes the saved information corresponding to the said UE available event location request in accordance with the identification of UE available event location request, and then sends to GMLC a message of acknowledgement of canceling the UE available event location request;

C13. GMLC deletes the saved information corresponding to the said UE available event location request in accordance with the identification of UE available event location request.

6. A method according to Claim 1, wherein the said location request is a change of area event location request, and the said step C comprising the steps of:

C21. The Gateway Mobile Location Center (GMLC) initiating to the Core Network (CN) cancellation procedure to the location request carrying the identification of change of area event location request, and CN initiating to the target UE cancellation procedure to the location request carrying the identification of change of area event location request;

C22. The said target UE deleting the saved information corresponding to the said change of area event location request in accordance with the identification of change of area event location request, and then sending to CN a message of acknowledgement of cancellation the change of area event location request, and CN forwarding to GMLC this message of acknowledgement of cancellation the change of area event location request;

C23. GMLC deleting the saved information corresponding to the said change of area event location request in accordance with the identification of change of area event location request.

7. A method according to Claims 5 or 6, wherein, after the said Step C, the method further comprising: GMLC sending to the LCS client a notification of cancellation the location request.

8. A method according to Claim 1, wherein the procedure of the location service system is aware that the privacy profile of the target UE was updated comprising :

**A0. the Privacy Profile Register (PPR) sending to the GMLC of the LCS system an LCS Privacy Profile Update Notification.**

**9. A method according to Claim 8, wherein, after the Step A0, the method further comprising: GMLC returning to PPR an LCS Privacy Profile Update Notification ACK.**

**10. A method according to Claim 1, wherein, after the Step C, the method further comprising: the LCS system sending to the LCS client corresponding to the said location request a notification of canceling the location request.**